ROBERT H. PETERSON CO.

# VR-1A
## INSTALLATION AND OPERATING INSTRUCTIONS

**SINGLE-FUNCTION WIRELESS REMOTE CONTROL SYSTEM FOR OPERATING HI/LOW SERVO MOTOR**

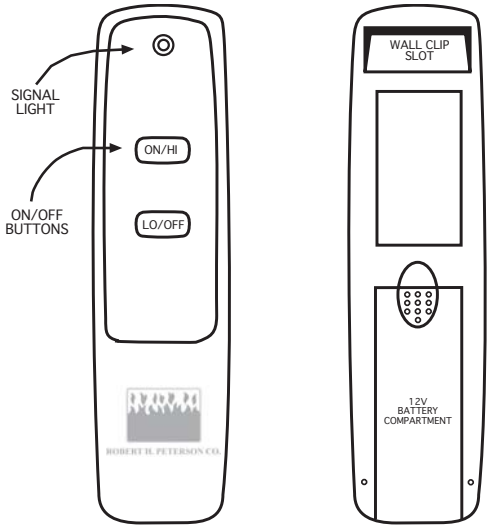
**IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS DO NOT ATTEMPT TO INSTALL OR OPERATE**

## INTRODUCTION

This remote control system was developed to provide a safe, reliable, and user-friendly remote control system for gas heating appliances. The system is operated manually from the transmitter. The system operates on radio frequencies (RF) within a 20' range using non-directional signals. The system operates on one of 255 security codes that are programmed into the transmitter at the factory; the remote receiver must learn the transmitter code prior to initial use.

**Review THERMO SAFETY SECTION under RECEIVER section. This high temperature safety feature shuts down the appliance when a potentially unsafe condition exists.**

### TRANSMITTER




This remote control SYSTEM offers the user a battery-operated remote control to power a DC servo motor such as those used with gas valves used in some decorative gas logs, gas fireplaces and other gas heating appliances.

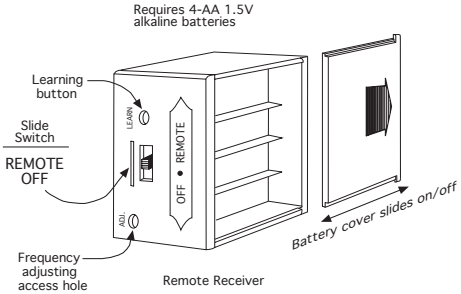
The servo motor circuit uses the battery power from the receiver to operate a servomotor. The circuit has reversing polarity software, which reverses the positive (+) and negative (-) output of the receiver's battery power to drive the servo motor forward/backward (HI/LO FLAME). The SYSTEM is controlled by the remote transmitter.

The transmitter operates on a 12V battery (A-23). Before using the transmitter install the 12-volt battery in the battery compartment.

It is recommended that ALKALINE batteries always be used for longer battery life and maximum operational performance.

The transmitter has ON/HI and LO/OFF functions that are activated by pressing either button on the face of the transmitter. When a button on the transmitter is pressed, a signal light on the transmitter illuminates to verify that a signal is being sent. Upon initial use, there may be a delay of three seconds before the remote receiver will respond to the transmitter. This is part of the system's design. If the signal light does not illuminate, check the position of the transmitter's battery.

**REMOTE RECEIVER**




**IMPORTANT**

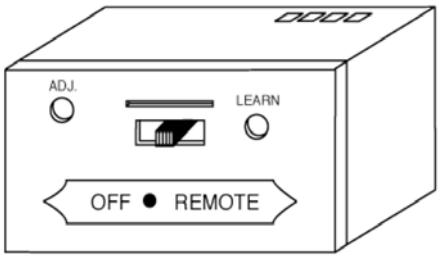
**THE REMOTE RECEIVER SHOULD BE POSITIONED WHERE AMBIENT TEMPERATURES DO NOT EXCEED 130° F.**

The remote receiver (right) operates on four 1.5V AA-size batteries. It is recommended that ALKALINE batteries be used for longer battery life and maximum microprocessor performance. IMPORTANT: New or fully charged batteries are essential to proper operation of the remote receiver as a servo motor's power consumption is substantially higher than standard remote control systems.

NOTE: The remote receiver will only respond to the transmitter when the 2-position slide button on the remote receiver is in the REMOTE position. The remote receiver houses the microprocessor that responds to commands from the transmitter to control system operation.

**FUNCTIONS:**

- With the slide switch in the REMOTE position, the system will only operate if the remote receiver receives commands from the transmitter. Upon initial use or after an extended period of no use, the ON/HI button may have to be pressed for up to three seconds before activating servomotor. If the system does not respond to the transmitter on initial use, see Matching Security Codes.
- With the slide in the OFF position, the system is off.
- It is suggested that the slide switch be placed in the OFF position if you will be away from your home for an extended period of time. Placing the slide switch in the OFF position also functions as a safety "lock out" by both turning the system OFF and rendering the transmitter inoperative.




## INSTALLATION INSTRUCTIONS

## WARNING

**DO NOT CONNECT REMOTE RECEIVER DIRECTLY TO 110-120VAC POWER. THIS WILL BURN OUT THE RECEIVER. FOLLOW INSTRUCTIONS FROM MANUFACTURER OF GAS VALVE FOR CORRECT WIRING PROCEDURES. IMPROPER INSTALLATION OF ELECTRIC COMPONENTS CAN CAUSE DAMAGE TO GAS VALVE AND REMOTE RECEIVER.**

**INSTALLATION**

The remote receiver can be mounted on or near the fireplace hearth. PROTECTION FROM EXTREME HEAT IS VERY IMPORTANT. Like any piece of electronic equipment, the remote receiver should be kept away from temperatures exceeding 130º F inside the receiver case. Battery life is also significantly shortened if batteries are exposed to high temperatures.

Make sure the remote receiver switch is in the OFF position. For best results it is recommended that 18 gauge stranded wires should be used to make connections and no longer than 20 ft.

## WIRING INSTRUCTION

CONNECTING THE RECEIVER TO A HI/LOW SERVO MOTOR STYLE VALVE SYSTEM

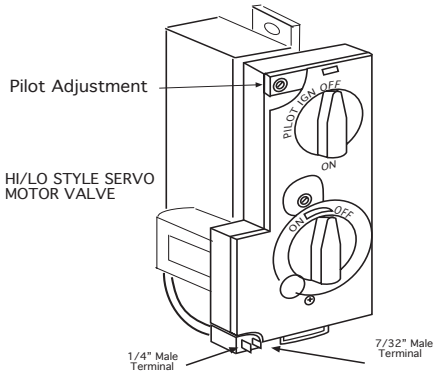
1. Connect the BLACK 18 gage stranded wire with the 1/4” female terminal from the receiver to the 1/4” male terminal on the valve servomotor.
2. Connect the Black 18 gage stranded wire with the 7/32” female terminal from the receiver to the 7/32” male terminal on the valve servomotor.
3. After receiver wires are connected to the valve servo motor terminals make sure the receiver shield is located over the receiver and then locate the receiver in an area that will not exceed the 130° F.

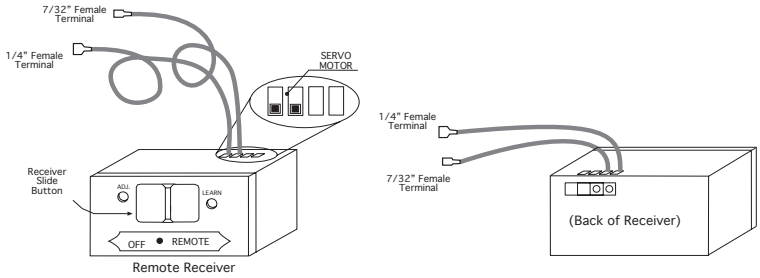
4. Depending on where the receiver is located it may be necessary to shorten the length of the wires. This can be done by removing the (2) wires from the receiver cutting them to the desired length then reinstalling them into the same connections on the receiver.

5. The receiver can be mounted on the side of a valve kit. NOTE: Always mount the receiver to side of the valve kit away from the fire.

**IMPORTANT NOTE:** Operation of these controls is dependent on which wire is attached to which terminal. If operation of control does not correspond to operating buttons on transmitter, reverse wire installation at the receiver or at the control.

**NOTE**: Up to 6 VDC of power is provided at the receiver terminal.




**THERMO-SAFETY FEATURE - RECEIVER (T/S - RX)**

When the ambient temperature at the THERMISTOR, inside the receiver case, reaches 130°F, the THERMISTOR will automatically send 10 seconds of power to the down terminal on the valve to shut the fireplace system off and the RECEIVER will begin emitting a series of 2 "beeps" every 4 seconds. When the ambient temperature, at the RECEIVER, drops between 120° F and 130° F, the user can reactivate the fireplace by pushing either button on the transmitter. When any transmitter button is pressed, the THERMISTOR "resets" itself and the fireplace will begin operating again. However, the "beeping" will continue, if the ambient temperature remains between 120° F and 130° F. This "beeping" alerts the user that the RECEIVER should be repositioned so the ambient temperature drops below 120° F.

When the temperature drops below 120° F, the "beeping" will cease, providing the user has "reset" the THERMISTOR by pushing either transmitter button to operate the fireplace. Allow sufficient time for receiver to cool below 120° F, and then press transmitter button to stop beeping.

## GENERAL INFORMATION

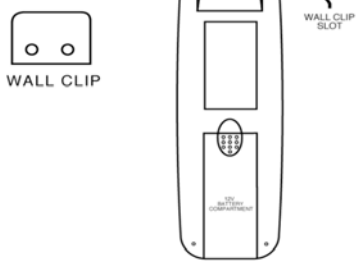
**MATCHING SECURITY CODES**

Each transmitter can use one of 255 unique security codes. It may be necessary to press the LEARN button on the remote receiver accept the transmitter security code upon initial use, if batteries are replaced, or if a replacement transmitter is purchased from your dealer or the factory. In order for the receiver to accept the transmitter security code, be sure the slide button on the receiver is in the REMOTE position; the receiver will NOT "LEARN" if the slide switch is in the OFF position. **Press and Release** the LEARN button on the remote receiver to accept the transmitter security code, and then **Press** any button on the transmitter. A change in the beeping pattern, at the receiver, indicates the transmitter's code has been accepted into the receiver. When an existing receiver has accepted the new transmitter, the new security code will overwrite the old one.

The microprocessor that controls the security code matching procedure is controlled by a timing function. If you are unsuccessful in matching the security code on the first attempt, wait 1 - 2 minutes before trying again--this delay allows the microprocessor to reset its timer circuitry--and try up to two or three more times.

**TRANSMITTER WALL CLIP**

The transmitter can be hung on a wall using the clip provided. If the clip is installed on a solid wood wall, drill 1/8" pilot holes and install with the screws provided. If it is installed on a plaster/wallboard wall, first drill two 1/4" holes into the wall. Then use a hammer to tap in the two plastic wall anchors flush with the wall; then install the screws provided.



**OPERATION**

1. This remote control will operate the gas valves servomotor to turn the gas valve from full OFF to full ON.
2. When the ON button is depressed the transmitter is sending a continuos RF signal to the receiver. The receiver then sends a continuous 6 volts of power to the servomotor. The servomotor turns to open the gas flow to the burner then to full ON.
3. When the OFF button is depressed the transmitter is sending a continuos RF signal to the receiver. The receiver then sends a continuous 6 volts of power to the servomotor. The servomotor turns to close the gas flow to the burner then full OFF.
4. The remote control will only work with the hand held transmitter. The receiver slide switch is only for positive OFF or REMOTE operation.

NOTE: Extensive use of the SERVO MOTOR setting will reduce the receiver's battery life significantly.

**BATTERY LIFE**

Life expectancy of the alkaline batteries in the VR-1A can be up to 12 months depending on use of the servo function. Check all batteries annually. When the transmitter no longer operates the remote receiver from a distance it did previously (i.e., the transmitter's range has decreased) or the remote receiver does not function at all, the batteries should be checked. It is important that the remote receiver batteries are fully charged, providing combined output voltage of at least 5.0 volts. The transmitter should operate with as little as 9.0 volts battery power. **NOTE: Extensive use of the SERVO MOTOR setting will reduce the receiver's battery life significantly.**

**TROUBLE SHOOTING**

If you encounter problems with your fireplace system, the problem may be with the fireplace itself or it could be with the VR-1A remote system. Review the appliance manufacturer's operation manual to make sure all connections are properly made. Then check the operation of the remote in the following manner:

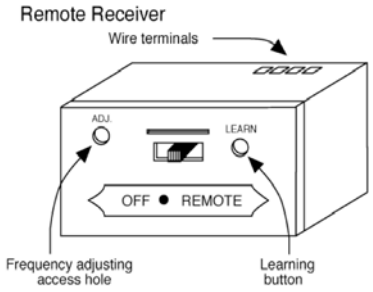
1. Make sure the batteries are correctly installed in the RECEIVER. One reversed battery will keep receiver from operating properly.
2. Check battery in TRANSMITTER to make sure contacts are touching (+) and (-) ends of battery. Bend metal contacts in for tighter fit.
3. Be sure RECEIVER and TRANSMITTER are within 20'-25' operating range.
4. Keep RECEIVER from temperatures exceeding 120° F. Battery life shortened when ambient temperatures are above 115° F.
5. If RECEIVER is installed in tightly enclosed metal surround, the operating distance will be shortened.
   NOTE:
   A receiver located in an area, where the ambient temperature inside the case exceeds 130° F, will cause the THERMO-SAFETY feature to cut in, requiring you to reposition the receiver to stop the warning beeps, and to "reset" the receiver's operation.
   Due to handling and shipping of the unit, handling or dropping of the transmitter by the customer, and/or heat conditions at the receiver, some receivers may need an occasional frequency adjustment. This adjustment is made to improve the communication and operating distance between the transmitter and the receiver. Follow the steps below for making the adjustment.

## FREQUENCY (DISTANCE) ADJUSTMENT PROCEDURE

**RECEIVER ADJUSTMENT**

1. To adjust at the receiver, use a small slotted screwdriver. Turn the adjustment (ADJ) screw counter-clockwise about 5° or maximum of 1/8 turn. This should correct the distance problem.
2. If that does not correct the problem, return adjustment screw to original position and then turn adjustment screw clockwise.

This adjustment is like tuning your radio. If you keep turning the adjustment screw, in either direction, you will go past the proper setting (tuning).




## SPECIFICATIONS

BATTERIES: Transmitter 12V - (A23)
Remote Receiver 6V - 4 ea. AA 1.5 Alkaline
Operating Frequency: 303.8 MHZ

FCC ID No.'s: transmitter - K9L1001; receiver - K9L330IRX
Canadian ISC ID No.'s: transmitter - 2439 102 728; receiver – 2439A-3301RX

**FCC REQUIREMENTS**

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

# Warranty Covering R. H. Peterson Company Remote Controls

This warranty is for the original purchaser of the product and is non-transferable. This warranty applies to products purchased for residential purposes. Please keep a copy of your sales slip as you will be asked to show proof of purchase for warranty claims.

Should any part fail because of defective workmanship or material within one year of the original date of retail purchase, R.H. Peterson Company will repair or, at R.H. Peterson's option, replace the defective parts.

This warranty does not cover parts becoming defective by misuse, accidental damage, electrical damage, improper handling and/or installation or service (log sets, burners and remote controls must be installed as outlined in the enclosed instructions by a qualified, professional installer and with only Peterson parts, control valves, remotes and accessories).

This warranty does not cover labor or labor-related charges. It specifically excludes liability for indirect, incidental or consequential damages.

Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specified legal rights and you may have other rights which may vary from state, province or nation.

For additional information regarding this warranty, or information on how to place a warranty claim, contact your Peterson dealer or the Robert H. Peterson Company.

ROBERT H. PETERSON CO.
14724 EAST PROCTOR AVENUE
CITY OF INDUSTRY, CALIFORNIA 91746
WWW.RHPETERSON.COM

When contacting your Peterson dealer or the Robert H. Peterson Company please provide the following information:

-Name, Address, Telephone Number of Owner
-Date of Purchase, Proof of Purchase
-Model Name, Date Code
-Any relevant information or circumstances, e.g. installation, mode of operation when defect was noted.

Warranty claim processing requires all of the above information. The Robert H. Peterson Company will reserve the right to physically inspect the product for defects by authorized representatives.

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Purchase Date: _____ Model: _____ Date Code: _____

Purchased From: _____ Date: _____

Name: _____

Address: _____

City: _____ State/Province: _____Zip/Postal Code _____

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